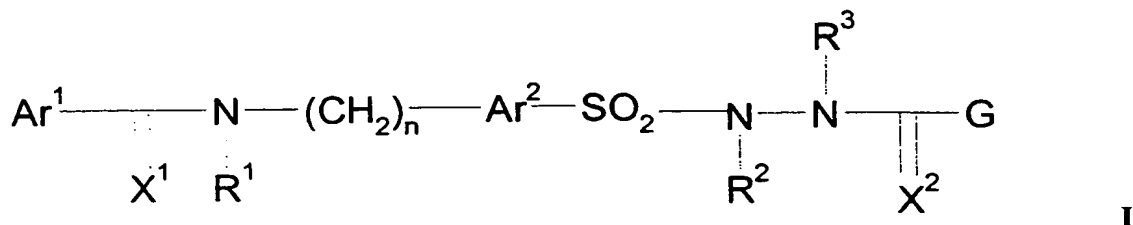


Claims

1. Sulfonyl hydrazide derivatives according to formula I



- 5 with its geometrical isomers, in an optically active form as enantiomers, diastereomers, as well as in the form of racemates, as well as pharmaceutically acceptable salts thereof, wherein

Ar^1 and Ar^2 are independently from each other an unsubstituted or substituted aryl or heteroaryl group,

- 10 X^1 and X^2 are independently from each other O or S;

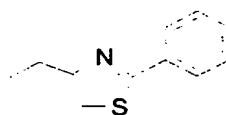
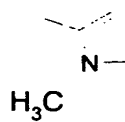
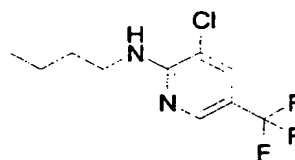
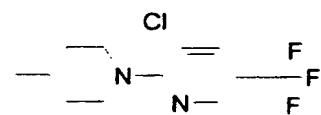
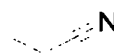
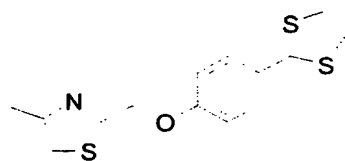
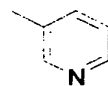
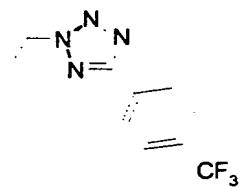
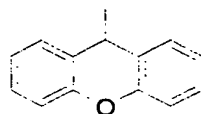
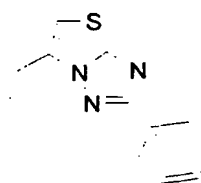
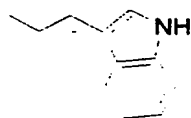
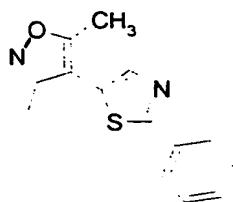
R^1 , R^2 , R^3 are independently from each other hydrogen or a C_1 - C_6 -alkyl substituent or R^1 forms a substituted or unsubstituted 5-6—membered saturated or unsaturated ring with Ar^1 ;

- or R^2 and R^3 form a substituted or unsubstituted 5-6—membered saturated or unsaturated ring;

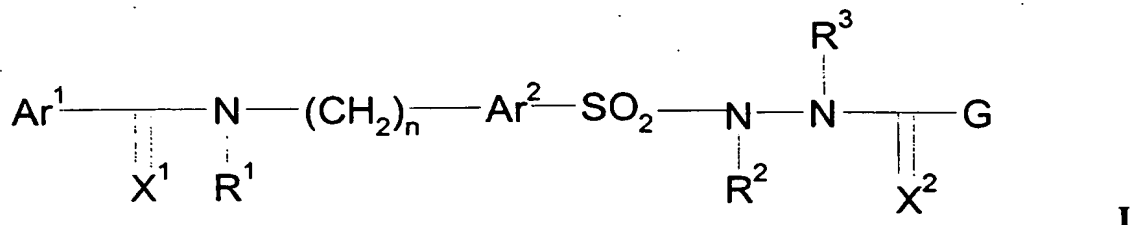
- 15 n is an integer from 0 to 5;

G is selected from a group comprising or consisting of an unsubstituted or substituted 4-8 membered heterocycle containing at least one heteroatom, or G is a substituted or unsubstituted C_1 - C_6 -alkyl group;

- 20 with the proviso that if Ar^1 is 4-chlorophenyl, Ar^2 is thienyl, X^1 and X^2 are O, R^1 , R^2 and R^3 are H, n is 1, G shall not be selected from the following group :



2. Sulfonyl hydrazide derivatives according to formula I



with its geometrical isomers, in an optically active form as enantiomers, diastereomers, as well as in the form of racemates, as well as pharmaceutically acceptable salts thereof, wherein

Ar¹ and Ar² are independently from each other an unsubstituted or substituted aryl or heteroaryl group,

X^1 and X^2 are independently from each other O or S;

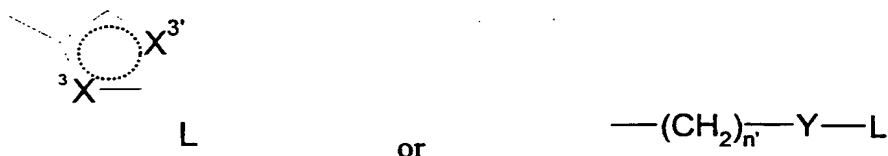
R^1, R^2, R^3 are independently from each other hydrogen or a C_1 - C_6 -alkyl substituent or R^1 forms a substituted or unsubstituted 5-6—membered saturated or unsaturated ring with Ar^1 ;

or R² and R³ form a substituted or unsubstituted 5-6—membered saturated or unsaturated ring;

n is an integer from 0 to 5;

G is selected from a group comprising or consisting of an unsubstituted or substituted 4-8 membered heterocycle containing at least one heteroatom, or G is a substituted or unsubstituted C₁-C₆-alkyl group; for use as a medicament.

3. A sulfonyl hydrazide derivative according to claim 1 or 2, wherein G is either



wherein, both X^3 and $X^{3'}$ are selected independently from each other from the group consisting of N, O, S or CHL';

Y is O, S or NR^4 , whereby R^4 is H or an unsubstituted or substituted $\text{C}_1\text{-C}_6$ -alkyl, an unsubstituted or substituted aryl or heteroaryl;

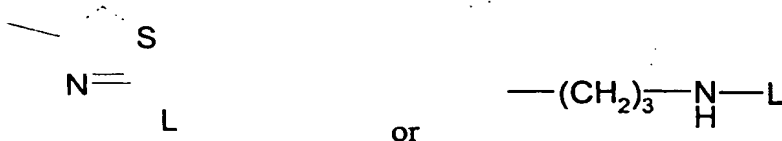
n' is an integer from 0 to 5, preferably between 1-3 and most preferred 3;

L and L' are independently selected from the group comprising or consisting of H, unsubstituted or substituted $\text{C}_1\text{-C}_6$ -aliphatic alkyl, unsubstituted or substituted $\text{C}_2\text{-C}_6$ -alkenyl, unsubstituted or substituted $\text{C}_2\text{-C}_6$ -alkynyl, unsubstituted or substituted cyclic $\text{C}_4\text{-C}_8$ -alkyl, optionally containing 1-3 heteroatoms and optionally fused with aryl or heteroaryl; or L is an unsubstituted or substituted aryl or heteroaryl, aryl- $\text{C}_1\text{-C}_6$ -alkyl, heteroaryl- $\text{C}_1\text{-C}_6$ -alkyl, $-\text{C}(\text{O})\text{-OR}^5$, $-\text{C}(\text{O})\text{-R}^5$, $-\text{C}(\text{O})\text{-NR}^5\text{R}^5$, $-\text{NR}^5\text{R}^5$, $-\text{NR}^5\text{C}(\text{O})\text{R}^5$, $-\text{NR}^5\text{C}(\text{O})\text{NR}^5\text{R}^5$, $-(\text{SO})\text{R}^5$, $-(\text{SO}_2)\text{R}^5$, $-\text{NSO}_2\text{R}^5$, $-\text{SO}_2\text{NR}^5\text{R}^5$;

whereby, R^5 and $\text{R}^{5'}$ are substituents being independently selected from the group comprising or consisting of H, unsubstituted or substituted $\text{C}_1\text{-C}_6$ -alkyl, unsubstituted or substituted $\text{C}_2\text{-C}_6$ -alkenyl, unsubstituted or substituted $\text{C}_2\text{-C}_6$ -alkynyl, unsubstituted or substituted aryl, unsubstituted or substituted heteroaryl, unsubstituted or substituted aryl- $\text{C}_1\text{-C}_6$ -alkyl, unsubstituted or substituted heteroaryl- $\text{C}_1\text{-C}_6$ -alkyl; said aryl or heteroaryl groups being optionally substituted by unsubstituted or substituted $\text{C}_1\text{-C}_6$ -alkyl, like trihalomethyl, unsubstituted or substituted $\text{C}_1\text{-C}_6$ -alkoxy, unsubstituted or substituted $\text{C}_2\text{-C}_6$ -alkenyl, unsubstituted or substituted $\text{C}_2\text{-C}_6$ -alkynyl, amino, aminoacyl, aminocarbonyl, unsubstituted or substituted $\text{C}_1\text{-C}_6$ -alkoxy-carbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfoxy, sulfonyl, $\text{C}_1\text{-C}_6$ -thioalkoxy.

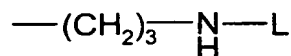
4. A sulfonyl hydrazide derivative according to any preceding claim, wherein Ar^1 and/or Ar^2 are independently selected from the group consisting of phenyl, thienyl, furyl, pyridyl, pyrazolyl, pyrimidinyl, imidazolyl, naphthyl, quinolyl, optionally substituted by unsubstituted or substituted $\text{C}_1\text{-C}_6$ -alkyl, in particular tri-halomethyl, unsubstituted or substituted $\text{C}_1\text{-C}_6$ -alkoxy, unsubstituted or substituted $\text{C}_2\text{-C}_6$ -alkenyl, unsubstituted or substituted $\text{C}_2\text{-C}_6$ -alkynyl, amino, acylamino, aminocarbonyl, unsubstituted or substituted $\text{C}_1\text{-C}_6$ -alkoxycarbonyl, aryl, carboxyl, cyano, halogen, hydroxy, nitro, sulfoxy, sulfonyl, $\text{C}_1\text{-C}_6$ -thioalkoxy.

5. A sulfonyl hydrazide derivative according to any of the preceding claims, wherein Ar^1 is a substituted or unsubstituted phenyl, preferably 4-chlorophenyl, X^1 and X^2 are O, while R^1 , R^2 , R^3 are all hydrogen, n is 1, Ar^2 is thienyl, G is selected from



5 whereby L is as above defined.

6. A sulfonyl hydrazide derivative according to any of the preceding claims, wherein G is



10 whereby L is as above defined, with most preferred groups L being substituted or unsubstituted pyridyl groups.

7. A sulfonyl hydrazide derivative according to claim 6, wherein L is a substituted or unsubstituted pyridyl group.
8. A sulfonyl hydrazide derivative according to any of the preceding claims selected from the following group :

- 15 4-chloro-N-[(5-{[2-({2-[4-(1,3-dithiolan-2-yl)phenyl]-1,3-thiazol-4-yl} carbonyl)-hydrazino]sulfonyl} thien-2-yl)methyl]benzamide
- 4-chloro-N-{[5-({2-[(2-phenyl-1,3-thiazol-4-yl)carbonyl]hydrazino} sulfonyl)thien-2-yl)methyl}benzamide
- 4-chloro-N-{[5-({2-[(2-{[(4-chlorophenyl)sulfonyl]methyl}-1,3-thiazol-4-yl)-carbonyl]hydrazino} sulfonyl)thien-2-yl)methyl}benzamide
- 20 4-chloro-N-{[5-({2-[(2-methyl-1,3-thiazol-4-yl)carbonyl]hydrazino} sulfonyl)thien-2-yl)methyl}benzamide
- 4-chloro-N-[(5-{[2-({2-[4-(1H-pyrrol-1-yl)phenyl]-1,3-thiazol-4-yl} carbonyl)-hydrazino]sulfonyl} thien-2-yl)methyl]benzamide

- 4-chloro-N-[(5-{[2-(2-[(4,5-dichloro-1H-imidazol-1-yl)methyl]-1,3-thiazol-4-yl}carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- 4-chloro-N-[(5-{[2-(2-[5-(trifluoromethyl)pyridin-2-yl]-1,3-thiazol-4-yl}carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- 5 4-chloro-N-[(5-{[2-(2-[3-chloro-5-(trifluoromethyl)pyridin-2-yl]-1,3-thiazol-4-yl}carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- 4-chloro-N-[(5-{[2-(2-[2-chloro-4-(trifluoromethyl)phenyl]-1,3-thiazol-4-yl}carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- 4-chloro-N-[(5-{[2-(2-[4-(trifluoromethyl)pyridin-3-yl]-1,3-thiazol-4-yl}carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- 10 4-chloro-N-[(5-{[2-(2-[(2,3-dichlorophenyl)-1,3-thiazol-4-yl]carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- 4-chloro-N-[(5-{[2-(2-[(2-furylmethyl)sulfonyl]methyl)-1,3-thiazol-4-yl]carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- 15 4-chloro-N-[(5-{[2-(2-[(2-chlorophenoxy)methyl]-1,3-thiazol-4-yl]carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- 4-chloro-N-[(5-{[2-(2-[(2,6-dichlorobenzyl)-1,3-thiazol-4-yl]carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide
- N-[(5-{[2-(2-[4-(1,3-dithiolan-2-yl)phenyl]-1,3-thiazol-4-yl]carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide
- 20 N-[(5-{[2-(2-[4-(1,3-dithiolan-2-yl)phenyl]-1,3-thiazol-4-yl]carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide
- N-[(5-{[2-(2-[4-(1,3-dithiolan-2-yl)phenyl]-1,3-thiazol-4-yl]carbonyl)hydrazino]sulfonyl}thien-2-yl)methyl]-4-nitrobenzamide
- 25 N'-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-5-[(1,3-dioxo-1,3-dihydro-2H-isoindol-2-yl)methyl]thiophene-2-sulfonohydrazide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)hydrazino]sulfonyl}thien-2-yl)methyl]-4-nitrobenzamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)hydrazino]sulfonyl}thien-2-yl)methyl]-3-hydroxybenzamide
- 30

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-hydroxybenzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

5 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-furamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-thien-2-ylacetamide

10 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-1-naphthamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-naphthamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-4-methylbenzamide

15 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-4-ethylbenzamide

4-tert-butyl-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

20 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-fluorobenzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-3-fluorobenzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-4-fluorobenzamide

25 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2,6-difluorobenzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-3,5-difluorobenzamide

30 2-chloro-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

3-chloro-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-4-iodobenzamide

5 2,6-dichloro-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}-butanoyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

3,5-dichloro-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}-butanoyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

10 2-bromo-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}-butanoyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

3-bromo-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}-butanoyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

4-bromo-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}-butanoyl)hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

15 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-iodobenzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-3-nitrobenzamide

20 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-nitrobenzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-4-(dimethylamino)benzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-3-methoxybenzamide

25 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-methoxybenzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-4-methoxybenzamide

30 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2,6-dimethoxybenzamide

- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-3,5-dimethoxybenzamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-2-(trifluoromethyl)benzamide
- 5 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-3-(trifluoromethyl)benzamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-4-(trifluoromethyl)benzamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-3,5-bis(trifluoromethyl)benzamide
- 10 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]nicotinamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]isonicotinamide
- 15 4-amino-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]benzamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-4-hydroxybenzamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-3,4-dihydroxybenzamide
- 20 3,4-diamino-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]benzamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]pyridine-2-carboxamide
- 25 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-6-hydroxypyridine-2-carboxamide
- 6-amino-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]nicotinamide
- N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino} butanoyl)-hydrazino]sulfonyl} thien-2-yl)methyl]-2-sulfanylnicotinamide
- 30

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-6-sulfanylnicotinamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2,6-dihydroxyisonicotinamide

5 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-5-nitro-1H-pyrazole-3-carboxamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-hydroxy-6-methoxybenzamide

10 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-8-hydroxyquinoline-7-carboxamide

2-amino-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}-butanoyl)hydrazino]sulfonyl}thien-2-yl)methyl]nicotinamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-4-fluoro-3-nitrobenzamide

15 2-amino-N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]benzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2,3,4-trihydroxybenzamide

20 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2-oxo-1,2-dihydropyridine-3-carboxamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2,4-dihydroxybenzamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-5-hydroxypyridine-2-carboxamide

25 N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-2,4-dioxo-1,2,3,4-tetrahydropyrimidine-5-carboxamide

N-[(5-{[2-(4-{[3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)-hydrazino]sulfonyl}thien-2-yl)methyl]-1H-imidazole-4-carboxamide

4-chloro-N-(4-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl}amino}-
butanoyl)hydrazino}sulfonyl}benzyl)benzamide

4-chloro-N-(2-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl}amino}-
butanoyl)hydrazino}sulfonyl}phenyl)benzamide

5 4-chloro-N-(3-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl}amino}-
butanoyl)hydrazino}sulfonyl}phenyl)benzamide

N-(4-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl}amino}butanoyl)-
hydrazino}sulfonyl}benzyl)-3-nitrobenzamide

10 4-chloro-N-(3-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl}amino}-
butanoyl)hydrazino}sulfonyl}benzyl)benzamide

N-(3-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl}amino}butanoyl)-
hydrazino}sulfonyl}benzyl)benzamide

N-(3-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl}amino}butanoyl)-
hydrazino}sulfonyl}benzyl)-2-hydroxybenzamide

15 N-(3-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl}amino}butanoyl)-
hydrazino}sulfonyl}benzyl)-3-nitrobenzamide

9. A sulfonamide derivative according to claim 8, which is selected from the group
consisting of

20

4-chloro-N-[(5-{{2-({2-[4-(1,3-dithiolan-2-yl)phenyl]-1,3-thiazol-4-
yl}carbonyl)hydrazino}sulfonyl}thien-2-yl)methyl]benzamide

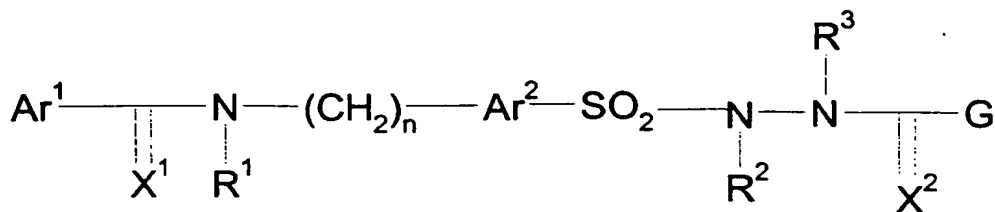
4-chloro-N-[(5-{{2-({2-[(2-chlorophenoxy)methyl]-1,3-thiazol-4-
yl}carbonyl)hydrazino}sulfonyl}thien-2-yl)methyl]benzamide

25 N-[(5-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-
yl}amino}butanoyl)hydrazino}sulfonyl}thien-2-yl)methyl]-2-hydroxybenzamide

N-[(5-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-
yl}amino}butanoyl)hydrazino}sulfonyl}thien-2-yl)methyl]-2-oxo-1,2-
dihydropyridine-3-carboxamide

4-chloro-N-(4-{{2-(4-{{3-chloro-5-(trifluoromethyl)pyridin-2-yl]amino}butanoyl)hydrazino]sulfonyl}benzyl)benzamide

10. Use of a sulfonyl hydrazide derivative according to formula I,



I

wherein

Ar^1 and Ar^2 are independently from each other an unsubstituted or substituted aryl or heteroaryl group,

X^1 and X^2 are independently from each other O or S;

R^1 , R^2 , R^3 are independently from each other hydrogen or a C_1 - C_6 -alkyl substituent or R^1 forms a substituted or unsubstituted 5-6—membered saturated or unsaturated ring with Ar^1 ;

or R^2 and R^3 form a substituted or unsubstituted 5-6—membered saturated or unsaturated ring;

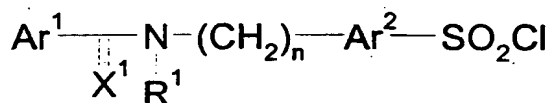
n is an integer from 0 to 5;

G is selected from a group comprising or consisting of an unsubstituted or substituted 4-8 membered heterocycle containing at least one heteroatom, or G is a substituted or unsubstituted C_1 - C_6 -alkyl group;

for the preparation of a pharmaceutical composition for the modulation of the JNK pathways.

11. Use according to claim 10 for the treatment or prevention of disorders associated with the abnormal expression or activity of JNK.
12. Use according to claim 10 or 11 for the treatment or prevention of disorders associated with the abnormal expression or activity of JNK2 and/or 3.

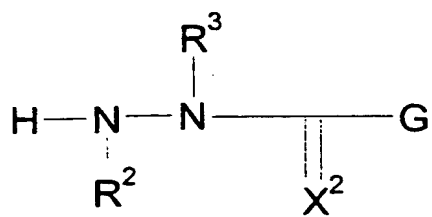
13. Use of sulfonyl hydrazides according to formula I in particular according to any of claims 10 to 12 for the treatment of neuronal disorders including epilepsy, Alzheimer's disease, Huntington's disease, Parkinson's disease, retinal diseases, spinal cord injury, head trauma.
- 5 14. Use of sulfonyl hydrazides according to formula I in particular according to any of claims 10 to 12 for the treatment of autoimmune diseases including Multiple Sclerosis, inflammatory bowel disease (IBD), rheumatoid arthritis, asthma, septic shock, transplant rejection.
- 10 15. Use of sulfonyl hydrazides according to formula I in particular according to any of claims 10 to 12 for the treatment of cancer including breast-, colorectal-, pancreatic cancer.
16. Use of sulfonyl hydrazides according to formula I in particular according to any of claims 10 to 12 for the treatment of cardiovascular diseases including stroke, arterosclerosis, myocordial infarction, myocordial reperfusion injury.
- 15 17. A pharmaceutical composition containing at least one sulfonyl hydrazide derivative according to any of the claims 1 to 9 and a pharmaceutically acceptable carrier, diluent or excipient thereof.
18. Process for the preparation of the sulfonyl hydrazide derivatives according to any of the claims 1 to 9 comprising or consisting of the steps of
- 20 a) preparing a sulfonyl compound V



V

- b) and reacting it with the hydrazide derivative VIII

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VIII

whereby the substituents Ar^1 , Ar^2 , R^1 , R^2 , R^3 , X^1 , X^2 and G are as defined above.